

AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions of claims in the application.

1. (Currently Amended) A susceptor of an approximately round disk shape, having a concave wafer pocket on a front surface thereof for accommodating a wafer, comprising:

a plurality of gas inlet notches and a plurality of gas outlet notches,

a gas supply channel having a first gas supply opening passing through from a rear surface of the susceptor to the wafer pocket, ~~a first~~ one of the gas inlet notches ~~notch~~ provided in a side surface of the susceptor, and a first gas inlet groove formed on the rear surface of the susceptor and extended from ~~the first~~ said one of the gas inlet notches ~~notch~~ to the first gas supply opening and having a shape adapted to supply a gas into the wafer pocket as the susceptor rotates in a predetermined direction; and

a gas discharge channel having a ~~second~~ gas discharge opening passing through from the wafer pocket to the rear surface of the susceptor, ~~a second~~ one of the gas discharge notches ~~notch~~ provided in the side surface of the susceptor, and a ~~second~~ gas discharge groove formed on the rear surface of the susceptor and extended from ~~the second~~ said one of the gas discharge notches ~~notch~~ to the ~~second~~ gas discharge opening and having a shape adapted to discharge the gas present in the wafer pocket as the susceptor rotates in the predetermined direction, wherein

the gas inlet notches are located in diametrically opposite positions on the side surface of the susceptor with respect to a center point of the susceptor, and

the gas outlet notches are located in diametrically opposite positions on the side surface of the susceptor with respect to the center point of the susceptor.

2. (Cancelled).

3. (Withdrawn) An epitaxial wafer production apparatus comprising:

a chamber having a gas supply vent and a gas discharge vent;

a susceptor of an approximately round disk shape, which is disposed inside the chamber and comprises a concave wafer pocket on the front surface thereof for accommodating a wafer, a gas supply channel passing through from a side surface or a rear surface to the wafer pocket, and a gas discharge channel passing through from the wafer pocket to the side surface or the rear surface;

support means for supporting the susceptor; and

heating means for heating the susceptor and the wafer inside the chamber.

4. (Withdrawn) The epitaxial wafer production apparatus according to claim 3, comprising a gas supply vent for supplying a carrier gas containing a raw material gas only above the susceptor located inside the chamber.

5. (Withdrawn) An epitaxial wafer production apparatus comprising:

a chamber;

a susceptor disposed inside the chamber and comprising a concave wafer pocket on a front surface thereof for accommodating a wafer;

support means for supporting the susceptor; and

heating means for heating the susceptor and the wafer inside the chamber, wherein the apparatus further comprises:

a gas supply vent for supplying a carrier gas containing a raw material gas to above the susceptor located inside the chamber; and

a heavy gas supply vent for supplying a gas which is heavier than the carrier gas to under the susceptor located inside the chamber.

6. (Withdrawn) A method for producing an epitaxial wafer, comprising the steps of:
placing a wafer into a concave wafer pocket formed on a front surface of a susceptor disposed inside a chamber;

supplying a gas from under the susceptor into the wafer pocket;

discharging a gas present inside the wafer pocket from under the susceptor; and

heating the susceptor and the wafer inside the chamber.

7. (Withdrawn) A method for producing an epitaxial wafer, comprising the steps of:
placing a wafer onto a susceptor disposed inside a chamber;
supplying a carrier gas containing a raw material gas to above the susceptor inside the chamber and supplying a gas heavier than the carrier gas to under the susceptor; and

heating the susceptor and the wafer inside the chamber.

8-9. (Cancelled)

10. (Previously Presented) The susceptor according to claim 1, wherein the first groove is formed so as to curve along the rear surface of the susceptor from the periphery of the rear surface of the susceptor to the first opening, and the second groove is formed so as to curve along the rear surface of the susceptor from the periphery of the rear surface of the susceptor to the second opening.

11. (Currently Amended) A susceptor of an approximately round disk shape, having a concave wafer pocket on a front surface thereof for accommodating a wafer, comprising:

a plurality of gas inlet notches;

a gas supply channel having ~~[[an]]~~ a gas supply opening passing through from a rear surface of the susceptor to the wafer pocket, ~~[[a]]~~ one of the plurality of gas inlet notches ~~notch~~ provided in a side surface of the susceptor, and a gas inlet groove formed on the rear surface of the susceptor and extended from ~~the~~ said one of the plurality of gas inlet notches ~~notch~~ to the gas supply opening and having a shape adapted to supply a gas into the wafer pocket as the susceptor rotates in a predetermined direction; and

a gas discharge channel passing through from the wafer pocket to the rear surface of the susceptor and having a shape adapted to discharge the gas present in the wafer pocket as the

susceptor rotates, the gas discharge channel being positioned at a center side of the susceptor relative to the gas supply channel, wherein

the gas inlet notches are located in diametrically opposite positions on the side surface of the susceptor with respect to a center point of the susceptor

12. (Previously Presented) The susceptor according to claim 11, wherein the groove is formed so as to curve along the rear surface of the susceptor from the periphery of the rear surface of the susceptor to the opening, and the gas discharge channel is formed so as to curve from the rear surface of the susceptor to a front of the susceptor.